JOURNAL OF PETROLOGY

Editors

UPTON, B. G. J. (*Executive Editor*), Grant Institute of Geology, West Mains Road, Edinburgh EH9 3JW, Great Britain.
ASHWORTH, J. R., Department of Geological Sciences, University of Aston, Birmingham B4 7ET, Great Britain.
EVANS, B. W., Department of Geological Sciences, AJ-20, University of Washington, Seattle 98195, U.S.A.
EWART, A., Department of Geology and Mineralogy, University of Queensland, St. Lucia, Queensland 4067, Australia.
FITTON, J. G., Grant Institute of Geology, West Mains Road, Edinburgh EH9 3JW, Great Britain.
McCALLUM, I. S., Department of Geological Sciences, AJ-20, University of Washington, Seattle 98195, U.S.A.
SCHREYER, W., Institut für Mineralogie, Ruhr-Universität Bochum, D-463 Bochum 1, Germany.
LE BAS, M. J. (*Data Base Liaison*), Department of Geology, The University, Leicester LE1 7RH, Great Britain.

Honorary Advisory Board

BELL, J. D. (Oxford)
COX, K. G. (Oxford)
ERNST, W. G. (Los Angeles)
MEHNERT, K. R. (Berlin)
MOORBATH, S. (Oxford)
NIGGLI, E. (Berne)
O'HARA, M. J. (Aberystwyth)
STANTON, R. L. (Armidale)
THOMPSON, J. B. (Harvard)
VINCENT, E. A. (Oxford)
ZEN, E-AN (Reston)

VOLUME 26 · 1985

CLARENDON PRESS · OXFORD

Oxford University Press, Walton Street, Oxford OX2 6DP
Oxford New York Toronto
Delhi Bombay Calcutta Madras Karachi
Kuala Lumpur Singapore Hong Kong Tokyo
Nairobi Dar es Salaam Cape Town
Melbourne Auckland
and associates in
Beirut Berlin Ibadan Nicosia

© *Oxford University Press, 1985*

Printed in Great Britain
at the University Press, Oxford
by David Stanford
Printer to the University

INDEX TO VOLUME 26

ATALLA, L., *see* MANTOVANI, M. S. M.

BATIZA, R., and VANKO, D. A. Petrologic Evolution of Large Failed Rifts in the Eastern Pacific: Petrology of Volcanic and Plutonic Rocks from the Mathematician Ridge Area and the Guadalupe Trough 564

BAUBRON, J.-C., *see* LE BEL, L.

BOHLEN, S. R., VALLEY, J. W., and ESSENE, E. J. Metamorphism in the Adirondacks. I. Petrology, Pressure and Temperature 971

CAMPBELL, I. H., *see* ROEDER, P. L.

CARBONIN, S., *see* DAL NEGRO, A.

CHAPPELL, B. W., *see* JOHNSON, R. W.

CIVETTA, L., *see* MANTOVANI, M. S. M.

COCHERIE, A., *see* LE BEL, L.

CONDIE, K. C. Secular Variation in the Composition of Basalts: an Index to Mantle Evolution 545

COX, K. G., and HAWKESWORTH, C. J. Geochemical Stratigraphy of the Deccan Traps at Mahabaleshwar, Western Ghats, India, with Implications for Open System Magmatic Processes 355

CUNDARI, A., *see* DAL NEGRO, A.

DAL NEGRO, A., CARBONIN, S., SALVIULO, G., PICCIRILLO, E. M., and CUNDARI, A. Crystal Chemistry and Site Configuration of the Clinopyroxene from Leucite-bearing Rocks and Related Genetic Significance: the Sabatini Lavas, Roman Region, Italy 1027

DE SOUSA, M. A., *see* MANTOVANI, M. S. M.

DEPAOLO, D. J. Isotopic Studies of Processes in Mafic Magma Chambers: I. The Kiglapait Intrusion, Labrador 925

DUNGAN, M., *see* MENZIES, M.

EBY, G. N. Monteregian Hills II. Petrography, Major and Trace Element Geochemistry, and Strontium Isotopic Chemistry of the Eastern Intrusions: Mounts Shefford, Brome, and Megantic 418

ELLIS, D. J., and GREEN, D. H. Garnet-forming Reactions in Mafic Granulites from Enderby Land, Antarctica—Implications for Geothermometry and Geobarometry 633

ERIKSSON, G., *see* SAXENA, S. K.

ESSENE, E. J., *see* BOHLEN, S. R.

FOUILLAC, A. M., *see* LE BEL, L.

FRIEND, C. R. L., *see* HALL, R. P.

FROST, B. R. On the Stability of Sulfides, Oxides, and Native Metals in Serpentinite 31

FROST, C. D., and O'NIONS, R. K. Caledonian Magma Genesis and Crustal Recycling 515

GRAMBLING, J. A., and WILLIAMS, M. L. The Effects of Fe^{3+} and Mn^{3+} on Aluminum Silicate Phase Relations in North-Central New Mexico, USA 324

GREEN, D. H., *see* ELLIS, D. J.

HALL, R. P., HUGHES, D. J., and FRIEND, C. R. L. Geochemical Evolution and Unusual Pyroxene Chemistry of the MD Tholeiite Dyke Swarm from the Archaean Craton of Southern West Greenland 253

HANSON, G. N., *see* RAJAMANI, V.

HARLEY, S. L. Garnet-Orthopyroxene Bearing Granulites from Enderby Land, Antarctica: Metamorphic Pressure-Temperature-Time Evolution of the Archaean Napier Complex 819
HAWKESWORTH, C. J., *see* COX, K. G.
HAWKESWORTH, C. J., *see* LE BEL, L.
HICKEY, R. L., *see* JOHNSON, R. W.
HUGHES, D. J., *see* HALL, R. P.
HUPPERT, H. E., and SPARKS, R. S. J. Komatiites I: Eruption and Flow 694
INNOCENTI, F., *see* MANTOVANI, M. S. M.
ISHIWATARI, A. Granulite-Facies Metacumulates of the Yakuno Ophiolite, Japan: Evidence for Unusually Thick Oceanic Crust 1
ISHIZUKA, H. Prograde Metamorphism of the Horokanai Ophiolite in the Kamuikotan Zone, Hokkaido, Japan 391
JAQUES, A. L., *see* JOHNSON, R. W.
JOHNSON, R. W., JAQUES, A. L., HICKEY, R. L., McKEE, C. O., and CHAPPELL, B. W. Manam Island, Papua New Guinea: Petrology and Geochemistry of a Low TiO_2 Basaltic Island-Arc Volcano 283
JONES, A. P., and WYLLIE, P. J. Paragenetic Trends of Oxide Minerals in Carbonate-rich Kimberlites, with New Analyses from the Benfontein Sill, South Africa 210
KEMPTON, P., *see* MENZIES, M.
LANG, H. M., and RICE, J. M. Regression Modelling of Metamorphic Reactions in Metapelites, Snow Peak, Northern Idaho 857
LANG, H. M., and RICE, J. M. Geothermometry, Geobarometry and T-X(Fe-Mg) Relations in Metapelites, Snow Peak, Northern Idaho 889
LE BEL, L., COCHERIE, A., BAUBRON, J.-C., FOUILLAC, A. M., and HAWKESWORTH, C. J. A High-K, Mantle Derived Plutonic Suite from 'Linga', near Arequipa (Peru) 124
LE ROEX, A. P. Geochemistry, Mineralogy, and Magmatic Evolution of the Basaltic and Trachytic Lavas from Gough Island, South Atlantic 149
LONG, J. V. P., *see* MASON, R. A.
McBIRNEY, A. R. Further Considerations of Double-Diffusive Stratification and Layering in the Skaergaard Intrusion 993
McKEE, C. O., *see* JOHNSON, R. W.
McLELLAN, E. Metamorphic Reactions in the Kyanite and Sillimanite Zones of the Barrovian Type Area 789
MANTOVANI, M. S. M., MARQUES, L. S., DE SOUSA, M. A., CIVETTA, L., ATALLA, L., and INNOCENTI, F. Trace Element and Strontium Isotope Constraints on the Origin and Evolution of Paraná Continental Flood Basalts of Santa Catarina State (Southern Brazil) 187
MARQUES, L. S., *see* MANTOVANI, M. S. M.
MASON, R. A., PARSONS, I., and LONG, J. V. P. Trace and Minor Element Chemistry of Alkali Feldspars in the Klokken Layered Syenite Series 952
MENZIES, M., KEMPTON, P., and DUNGAN, M. Interaction of Continental Lithosphere and Asthenospheric Melts below the Geronimo Volcanic Field, Arizona, USA 663
MIYASHIRO, A., and SHIDO, F. Tschermak Substitution in Low- and Middle-grade Pelitic Schists 449
O'NIONS, R. K., *see* FROST, C. D.

OTTEN, M. T. The Subsolidus History of the Artfjället Gabbro: a TEM study of Olivine, Augite and Orthopyroxene 488

PARSONS, I., *see* MASON, R. A.

PETERSEN, J. S. Columnar-Dendritic Feldspars in the Lardalite Intrusion, Oslo Region, Norway: 1. Implications for Unilateral Solidification of a Stagnant Boundary Layer 223

PICCIRILLO, E. M., *see* DAL NEGRO, A.

RAJAMANI, V., SHIVKUMAR, K., HANSON, G. N., and SHIREY, S. B. Geochemistry and Petrogenesis of Amphibolites, Kolar Schist Belt, South India: Evidence for Komatiitic Magma Derived by Low Percentages of Melting of the Mantle 92

RICE, J. M., *see* LANG, H. M.

ROEDER, P. L., and CAMPBELL, I. H. The Effect of Postcumulus Reactions on Composition of Chrome-spinels from the Jimberlana Intrusion 763

SALVIULO, G., *see* DAL NEGRO, A.

SAXENA, S. K., and ERIKSSON, G. Anhydrous Phase Equilibria in Earth's Upper Mantle 378

SHIDO, F., *see* MIYASHIRO, A.

SHIREY, S. B., *see* RAJAMANI, V.

SHIVKUMAR, K., *see* RAJAMANI, V.

SPARKS, R. S. J., *see* HUPPERT, H. E.

STOLZ, A. J. The Role of Fractional Crystallization in the Evolution of the Nandewar Volcano, North-eastern New South Wales, Australia 1001

STORMER, J. C., *see* WHITNEY, J. A.

ULFF-MØLLER, F. Solidification History of the Kidlit Lens: Immiscible Metal and Sulphide Liquids from a Basaltic Dyke on Disko, Central West Greenland 64

VALLEY, J. W., *see* BOHLEN, S. R.

VANKO, D. A., *see* BATIZA, R.

WHALEN, J. B. Geochemistry of an Island-Arc Plutonic Suite: the Uasilau-Yau Yau Intrusive Complex, New Britain, P.N.G. 603

WHITNEY, J. A., and STORMER, J. C. Mineralogy, Petrology and Magmatic Conditions from the Fish Canyon Tuff, Central San Juan Volcanic Field, Colorado 726

WILLIAMS, M. L., *see* GRAMBLING, J. A.

WYLLIE, P. J., *see* JONES, A. P.